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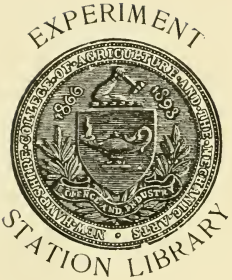


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NEW HAMPSHIRE COLLEGE

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# The DAIRY INDUSTRY IN NEW HAMPSHIRE

By IVAN COMINGS WELD

NEW HAMPSHIRE COLLEGE
OF
AGRICULTURE AND THE MECHANIC ARTS
DURHAM

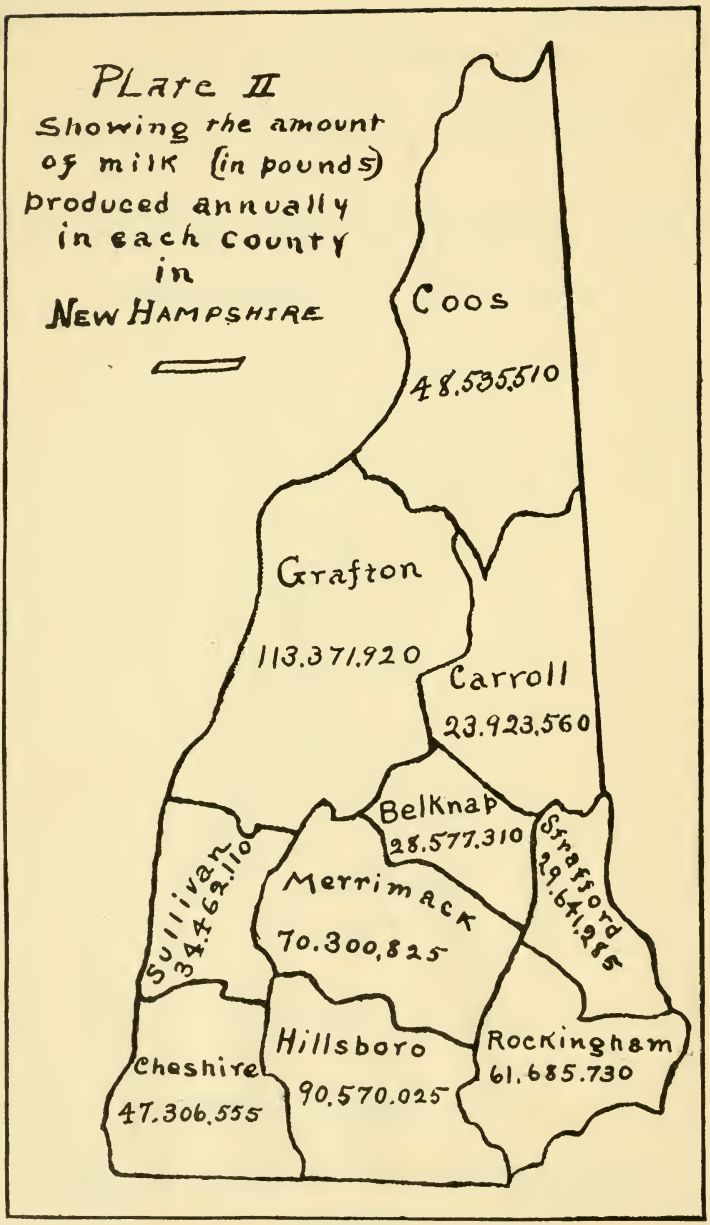
PLATE II
Showing the amount of milk (in pounds) produced annually in each county in NEW HAMPSHIRE
Coos
48.535.510
Grafton
113.371.920
Carroll
23.923.560
Belknap
28.577.310
Strafford
29.641.285
Sullivan
34.469.110
Merrimack
70.300.825
Hillsboro
90.570.025
Rockingham
61.685.730
Cheshire
47.306.555

# THE EXTENT AND DIVISION OF THE DAIRY INDUSTRY IN NEW HAMPSHIRE.

BY IVAN COMINGS WELD.

THE earliest information we have regarding dairying in New Hampshire is found in a letter written August 6, 1634. In this letter, Mr. Ambrose Gibbons, manager of Capt. John Mason's plantation, which was located near the present City of Portsmouth, writes to his employer in part as follows: "you have here at the great house 9 Cowes, 1 Bull, 4 calves of the last year and 9 of this yeare, the prove very well, farre better than ever was expected. They are as good as your ordinary Cattle in England and they goates prove some of them very well, both for milke and breed. if you did send ashippe for the Western Ilands of 6 scoore tunne or thereabouts for cowes & goates it would be profitable for you. A good husband with his wife to tend the Cattle & to make butter and cheese will be profitable, for maides they are soone goune in this countrie"

"Newitchawanock, the 6th of August 1634"

According to an ancient authority, such cattle as those referred to were "valued at Fife & twenty pounds the head, being very Large Beasts of a yellowish colour & Said to be brought by Capt. Mason from Denmark."

These cattle and their progeny were scattered through parts of Maine, New Hampshire and Massachusetts and formed the foundation stock for the early settlers in many New England colonies.

For more than 200 years in New Hampshire, cows were only kept to supply local demands for milk, cheese and but-

ter. They were usually milked during the summer, when a year's supply of dairy products for the family was prepared. It was not until the cities and towns sprung into existence that the buying and selling of dairy products in large quantities became possible or desirable. In 1845, 212 years after Mason's importation of cows to New Hampshire dairy farmers first began to send milk on the steam cars to Boston.

The first private creamery business in New Hampshire was conducted by Charles H. Waterhouse in the town of Barrington in 1881. Mr. Waterhouse was also manager of the first co-operative creamery to be established by dairy farmers in New Hampshire, which was located in the Suncook Valley at Short Falls in the town of Epsom. It opened its doors for business on April 6, 1885. For a period of about two years previous to the introduction of centrifugal cream separators, the milk, after it was received at the creamery, was placed in cans of ice water and the cream allowed to rise to the surface. A portion of the cream from the morning's delivery was removed late in the afternoon by a hand skimmer, and the remainder allowed to stand until next morning. Mr. Richard B. Hall of North Monroe was the owner of the first centrifugal cream separator to be used in the state, he having purchased a dairy size machine in March, 1884. The Hanover creamery at Hanover was the first co-operative concern in the state to use power machines for separating cream.

With the advent of cream separators, other creameries were established in the best farming centers in the West and northern parts of the state. Farmers in the southern portion have found excellent markets for their milk, not only in creameries but among the rapidly increasing population of nearby cities and towns.

The importance of the dairy industry in New Hampshire can hardly be overestimated. From its very inception

by the early colonists in 1633, it has steadily developed until it has grown to be the largest, the most profitable, and, hence, the most important revenue-producing branch of our agriculture. It is, also, the one industry most closely identified with the health and very existence of all our people.

With recent improved facilities for transporting and distributing milk and milk products, there has naturally followed increased market demands. Because of this increased demand on the part of the individual and because of our increasing population, our farms have been called upon to furnish more and more milk. The financial advantages to the dairy farmer have become more and more attractive and for many years the number of dairy cows has been steadily increasing.

Within the short space of a few hours, food material consumed by the cow becomes partially transformed into a finished, marketable and indispensable article of human food. At the same time about nine tenths of the fertilizing value of the food eaten by the cow is made ready and returned to the soil to assist the farmer in growing other forage crops.

The rapid and profitable development of the dairy industry in New Hampshire would seem to offer substantial proof that the state possesses exceptional advantages for the production of dairy products. The revenue which New Hampshire farmers now derive from the sale of dairy products is larger than that derived from the sale of all other farm products combined.

Unlike some other branches of agriculture, dairying does not rob the soil of its fertility. Dairying is a self-supporting industry and is not dependent on the artificial. It is, therefore, an ideal industry, because from its own resources it is able to sustain itself forever. An ideal industry must not only furnish steady employment to those who engage in it but also a steady income during the entire year, and dairying, more than any other branch of agriculture, can

be depended upon to do both. The income, however, in the future as in the past, will necessarily depend largely on the skill and intelligence with which the business is managed.

The latest figures obtainable show the number of milch cows in the state to be 129,900. Their total valuation is $4,200,966. The average valuation per head is $32.34 or $4.90 per head higher than the average for the entire country. The geographical distribution of milch cows by counties is shown by Plate I.

The number of farms in each county, their average size and the average number of milch cows per farm, is as follows:

| | Total No. farms. | Av. No. acres per farm. | Av. No. cows per farm. |
|---|---|---|---|
| Belknap | 1,864 | 110.5 | 3.6 |
| Carroll | 2,413 | 150.9 | 2.3 |
| Cheshire | 2,660 | 138.7 | 4.2 |
| Coös | 1,895 | 173.6 | 6.0 |
| Grafton | 4,173 | 148.6 | 6.4 |
| Hillsborough | 4,137 | 109.8 | 5.1 |
| Merrimack | 3,893 | 122.5 | 4.4 |
| Rockingham | 4,240 | 78.2 | 3.4 |
| Strafford | 2,216 | 88.9 | 3.1 |
| Sullivan | 1,833 | 143.1 | 4.4 |

The average cow in New Hampshire is producing about 11.57 pounds of milk daily or 4,223.05 pounds in one year. On this basis 1,502,943 pounds of milk are produced in one day and 548,574,195 pounds represents the total yearly product. This amount is equal to 516,305,030 pints or 258,152,515 quarts. The amount of milk produced annually in each county is shown by Plate II.

In disposing of their milk New Hampshire farmers are favored with a variety of good markets. The population of New Hampshire is now about 430,000 and the amount of

milk consumed daily is about one pint or one pound *per capita*. Approximately, 156,950,000 pounds are consumed annually, the remainder being manufactured into butter, cheese, condensed milk or shipped to the Boston market.

The following figures show approximately how New Hampshire farmers are disposing of their milk at the present time:

| | |
|---|---|
| Made into cheese on farms | 950,000 lbs. yearly |
| Sold to condensed milk factory | 1,275,000 lbs. yearly |
| Sold to cheese factories | 23,606,000 lbs. yearly |
| Sold to Boston contractors | 73,397,000 lbs. yearly |
| Sold to creameries | 138,415,000 lbs. yearly |
| Made into butter on farms | 143,981,000 lbs. yearly |
| Consumed within the state | 156,950,000 lbs. yearly |
| Total yearly product | 548,574,000 pounds |

There is in the state at the present time one condensed milk factory, seven cheese factories, 52 creameries and 146 stations from which milk is shipped to Boston. Plate III gives the location of each of these markets.

The condensed milk factory is located at Whitefield. It was erected and equipped at a cost of about $50,000 and furnishes a good market for nearby milk producers.

The cheese factories are seven in number and represent an investment of about $10,000. Their location is as follows:

Bear Rock Cheese Factory, Stewartstown; Cedar Brook Cheese Factory, Stewartstown; Clarksville Cheese Factory, Clarksville; East Colebrook Cheese Factory, East Colebrook; Columbia Cheese Factory, East Columbia; Hood's Cheese Factory, South Lancaster, and the Valley Brook and Percy Stream Factory at Pittsburg.

About 2,500 New Hampshire farmers are now engaged in producing milk for the Boston market. Milk is transported in 8½-quart cans, packed in special refrigerator cars attached to passenger or freight trains. During the past

year the average daily shipment from the state was 11,167 cans. There are at present 147 railway stations from which milk is forwarded to Boston six days in the week. The list is as follows:

Allenstown
Amherst
Andover
Antrim
Ashuelot
Balloch's Crossing
Bagley's
Bath
Barnstead
Barrington
Bennington
Boscawen
Bradford
Bristol
Camp Tract
Canaan
Canobie Lake
Canterbury
Cavender's
Chandler's
Chester
Chichester
Claremont Junction
Claremont
Cold River
Dalton
Danbury
Derry
Dover
Durham
East Andover
East Haverhill
East Kingston
East Lebanon
East Weare
East Westmoreland
Elmwood
Enfield
Epping
Epsom
Everett's
Exeter
Fitzwilliam
Forrest Road
Franklin
Fremont
Goffstown
Grafton
Grafton Center
Grasmere
Greenfield
Greenville
Groveton
Hall's Crossing
Hampstead
Hampton
Henniker
Henniker Junction
Hill
Hillsborough
Hinsdale
Hollis
Holton's
Hooksett
Hubbards
Jaffrey
Keene
Kellyville
Lancaster
Lane's Crossing
Lebanon
Lee
Lisbon
Littleton
Lyford's Crossing
Madbury
Mason
Melvin's Mills
Merrimack
Milford
Mt. Bellevue
Mt. Sunapee
Nahor's Crossing
Nashua Junction
Newbury
Newfields
Newmarket
Newport
North Boscawen
North Hampton
North Haverhill
North Lisbon
Northumberland
North Weare
Parker's Station
Peterborough
Pike
Pittsfield
Portsmouth
Potter Place
Pratt's
Quincy
Reed's Ferry
Richardson's Crossing
Rindge
Riverdale
Roby's Corner
Rochester
Rockingham Junction
Rollinsford
Rumney
Russel's
Salem
Salmon Falls
Sandown
Scott's
Short Falls
South Danbury
South Lancaster
South Lyndeborough
South Merrimack
State Line
Sugar Hill
Sunapee
Suncook
Tarbell's
Tarbell's Crossing
Thomas' Crossing
Thompson's
Thornton's Ferry
Troy
Walpole
Warner
Waterloo
Webster's Mills
West Andover
West Canaan
West Claremont
West Deering
Westmoreland
Westport
Whitefield
Wilton
Winchester
Windham
Wing Road

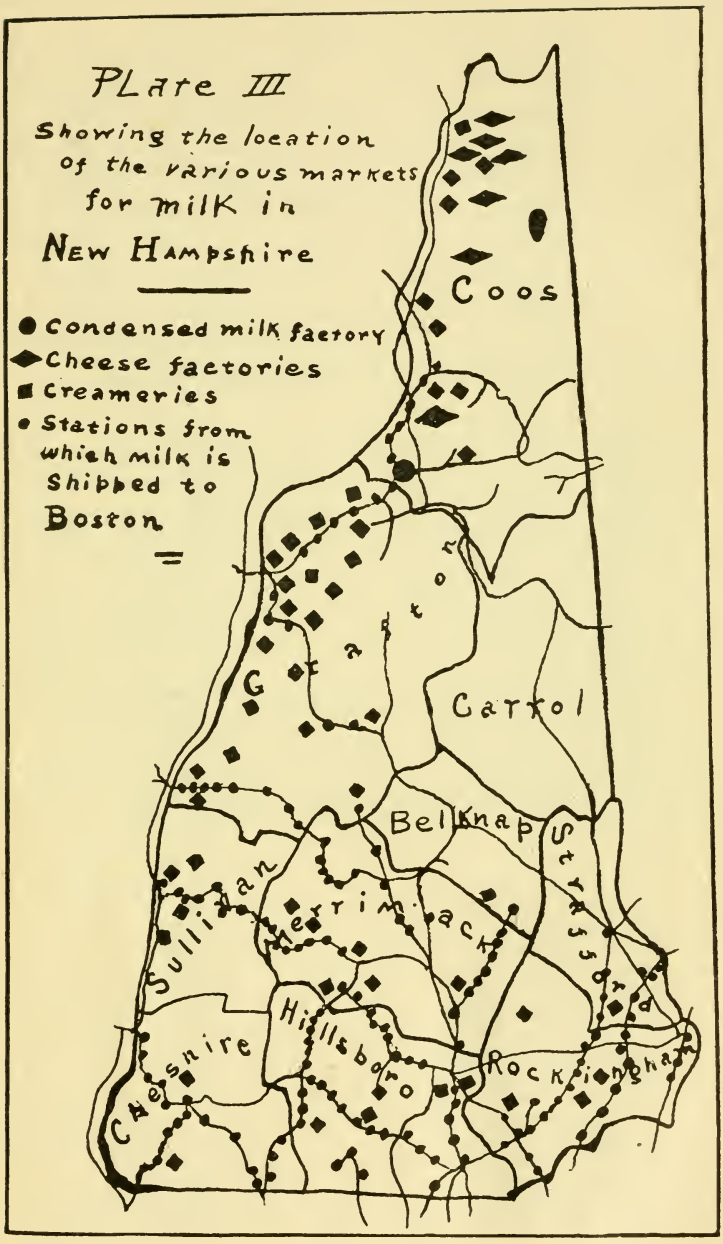
Plate III
Showing the location of the various markets for milk in New Hampshire
Condensed milk factory
Cheese factories
Creameries
Stations from which milk is shipped to Boston
Coos
Grafton
Carroll
Belknap
Merrimack
Sullivan
Cheshire
Hillsboro
Rockingham
Strafford

The creameries of New Hampshire are famous for the fine quality of their product, which in competition with that of other states has won highest honors in both the Columbian and Paris expositions. At present there are 52 concerns in operation in 44 different towns. They represent an investment of about $255,000 and afford local farmers with a safe and satisfactory market for milk. Thirty-five hundred farmers are thus disposing of their butter fat and at the same time utilizing their skim milk in growing young stock. The names of the creameries, with the towns in which they are located, are as follows:

Baker's River Creamery.....West Rumney.
Bath Creamery.....Bath.
Benton Creamery .....North Benton.
Bishop's Creamery.....Bethlehem.
Bristol Creamery.....Bristol.
Putnam's Creamery .....Contoocook.
Charlestown Creamery.....Charlestown.
Claremont Creamery.....Claremont.
Contoocook Valley Creamery.....Henniker.
Cornish Creamery.....Cornish Flat.
Eastman's Creamery.....Manchester.
Etna Creamery.....Etna.
Gilson's Creamery.....Pembroke.
Gilmanton Creamery.....Gilmanton.
Guernsey Dairy.....Contoocook.
Hartford's Creamery.....Lancaster.
Haverhill Creamery.....Haverhill.
Hillside Creamery.....Cornish.
Hood's Creamery.....Derry.
Hood's Creamery.....Swiftwater.
Hood's Creamery.....West Lebanon.
Keene Creamery.....Keene.
Leach Stream Creamery.....West Stewartstown.
Lebanon Creamery.....Lebanon.
Lisbon Creamery.....Lisbon.
Lyman Creamery.....Lyman.
Lyme Creamery.....Lyme.
Meadow Rock Creamery.....Meadows.
Mountain View Creamery.....Stewartstown.
New Boston Creamery.....New Boston.
New Hampshire College Creamery.....Durham.
New Hampshire Creamery.....Colebrook.
North Stratford Creamery.....Coös.
North Haverhill Creamery.....North Haverhill.
Peterborough Creamery.....Peterborough.
Piermont Creamery.....Piermont.
Plymouth Creamery.....Plymouth.
Prescott's Creamery.....Manchester.
Robinson's Creamery.....East Brentwood.

| | |
|---|---|
| Sanborn Creamery | Leavitt's Hill. |
| Savage's Creamery | Lancaster. |
| Sugar Hill Creamery | Lisbon. |
| Sunset View Creamery | Colebrook. |
| Sutton Creamery | Sutton. |
| The Patron's Creamery | East Haverhill. |
| Warner Creamery | Warner. |
| Wentworth Creamery | Wentworth. |
| Whiting's Creamery | Wilton. |
| White Mountain Creamery | Littleton. |
| Winchester Creamery | Winchester. |
| Woodsville Creamery | Woodsville. |

It is a fact worthy of notice that in disposing of milk, New Hampshire dairymen can choose between several excellent markets. From the nature of these markets and their close proximity to each other it necessarily follows that one market cannot possess and retain distinct advantages. In choosing between them one should be governed by local conditions, individual preferences and the adaptability of one's cows as milk or butter fat producers. After having once determined which market to patronize it is wise to make a careful study of the requirements of that particular market and arrange to produce the greatest possible amount of milk or butter at the lowest possible cost per pound.

The successful New Hampshire dairyman of tomorrow must know more of the principles of plant growth and animal nutrition. He must be familiar with the various breeds of dairy cattle and the condition governing the production of milk.

He must understand the principles of bacteriology in its relation to milk and milk products. He must be able to apply accurately the various tests used for determining the quality and condition of milk and cream. He must know the theory and practice of centrifugal separation of cream, of cream ripening and butter and cheese making. He must be in touch with the markets and know just what they require. In short, the successful dairyman of tomorrow must be a better business man than the dairyman of yesterday.

New Hampshire dairymen should spare no effort in still further developing the dairy industry in the state. As workers in this most important branch of our agriculture,

every influence should be exerted to still further increase the fertility of our farms, to still further increase the productive capacity of our dairy cows, and to materially lower the cost of milk and butter production. We must also maintain the reputation we have earned for the superior quality of our products.

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